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10/522,055	08/08/2005	Michel Luc Bouchoucha	1606.72259	3964
24978 7590 02/22/2007 GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			EXAMINER CWERN, JONATHAN	
			ART UNIT 2809	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/522,055

Applicant(s)

BOUCHOUCHA, MICHEL LUC

Examiner

Jonathan G. Cwern

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

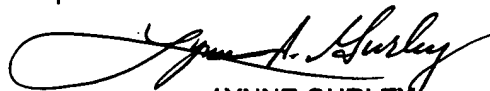
## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



LYNNE GURLEY  
SUPERVISORY PATENT EXAMINER

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/13/05

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is in response to the application filed 8/8/2005.

Currently, claims 1-19 are pending.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

2. The information disclosure statement filed 6/31/2005 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but due to improper format, the information referred to therein has been transcribed to the examiner's notice of references cited (PTO Form 892) and the references have been considered. A proper listing on the proper form should be submitted by Applicant to make the record clear.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show standard fastening means 2 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

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- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the

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- invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

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4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

5. Claims 1-19 are objected to because of the following informalities: in claim 1, on line 5, the phrase "containing means transmitting" is suggested to be changed to read "containing a transmission means transmitting". On line 9, the phrase "the three phase-shift measurements" does not refer back to a first occurrence of the term. It is suggested to add the phrase "to obtain three phase-shift measurements" on to the end of line 8. This will correct the problem. On line 10, the phrase "the position" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "a position". On line 11, the phrase "the assessment" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "an assessment". On lines 10-11, the phrase "said element" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "said transmitting element".

6. In claim 2, on line 2, the phrase "the measurements corresponding to the phase shift" is suggested to be changed to read "the three phase-shift measurements". On line 2, the phrase "in memory means" is suggested to be changed to read "in a memory means".

7. In claim 3, on line 2, the phrase "the receiving means" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "the reception



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means". On lines 2-3, the phrase "the abdominal belt" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "an abdominal belt".

8. In claim 5, on line 3, the phrase "he" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "the subject". On line 3, the phrase "the element" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "the transmitting element".

9. In claim 6, on line 4, the phrase "the memory means" does not refer back to a first occurrence of the term. It is suggested to make claim 6 dependent on claim 2 to correct this problem. On line 2, the phrase "the power supply" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "a power supply".

10. In claim 9, on line 6, the phrase "containing means transmitting" is suggested to be changed to read "containing a transmission means transmitting". On line 11, the phrase "said receivers" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "said at least three receivers". Also on line 11, the phrase "said element" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "said transmitting element".

11. In claim 10, on line 2, the phrase "the memory" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "a memory". Also on line 2, the phrase "comprises means" is suggested to be changed to read "comprises

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a means". On line 3, the phrase "the receivers" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "the at least three receivers".

12. In claim 12, on line 3, the phrase "integrated" is suggested to be changed to read "an integrated".

13. In claim 13, on line 2, the phrase "induced" is suggested to be changed to read "an induced".

14. In claim 14, on line 2, the phrase "the receivers" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "the at least three receivers".

15. In claim 15, on line 2, the phrase "the induction of the power supply" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "the induction of a power supply". Also on line 2, the phrase "means" is suggested to be changed to read "a means".

16. In claim 16, on line 4 the phrase "the three receivers" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "the at least three receivers". On line 3, the phrase "the signals" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "signals".

17. In claim 17, on line 2, the phrase "by means for" is suggested to be changed to read "by a means for". Also on line 2, the phrase "the memory means" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "a memory means". On line 2, the phrase "the data" does not refer back to a first occurrence of the term. It is suggested to change the phrase to read "data".

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18. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

19. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, on line 2 and on line 12, and also in claim 8, on line 2, the phrase "and/or" is indefinite. The examiner evaluates as "or" for the purposes of examining.

21. In claim 9, on line 4, the phrase "on the one hand", and on line 12, the phrase "on the other hand" are indefinite. It is suggested to remove these phrases completely.

***Claim Rejections - 35 USC § 103***

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

24. Claims 1-5, 9-10, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frisch et al. (US 6,904,308, filed 5/20/02) in view of Kimchy et al. (US 2004/0015075, filed 6/11/01).

25. Frisch shows the claimed invention in the figures and corresponding text as: pertaining to claim 1, a method of non-invasive exploration for assessing the digestive motricity and/or transit of a human or animal subject, comprising: said subject swallowing an ingestible transmitting element which is non-digestible containing means transmitting at a given fixed frequency (source 100, column 3, line 60 through column 4 line 5); measuring, at a given time using at least three reception means (antenna elements 10a through 10z, column 3, lines 10-22) distributed around said subject's trunk (belt is worn around the body, column 3, lines 13-16); determining by triangulation (column 4, lines 35-40) the position of said element (column 4, lines 10-34); defining, according to the position of said element, a data for the assessment of the digestive motricity and/or transit (sensors 110 provide the data, column 3, lines 65-67);

Pertaining to claim 2, the method according to claim 1, characterized in that the measurements corresponding to the phase shift are stored in memory means (data storage unit 22, column 3, lines 41-42);

Pertaining to claim 3, the method according to claim 1, characterized in that the receiving means are placed around the abdominal belt (antenna array belt 10, column 3, lines 10-22);

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Pertaining to claim 4, the method according to claim 1, characterized in that a series of position measurements are made which are spread over time (beacon may send out an intermittent signal or transmit at the same time as the data signal, column 3 line 67 through column 4, line 9);

Pertaining to claim 5, the method according to claim 1, characterized in that a position reference measurement is made when the element is in the mouth of the subject, before he swallows it (the location of the signal source is in the body, this could include the mouth, column 4, lines 64-65);

Pertaining to claim 9, a non-invasive exploration system for assessing the digestive motricity and/or transit of a human or animal subject, in particular for the implementation of the method according to claim 1, characterized by: on the one hand: an ingestible transmitting element which cannot be digested by said subject containing means transmitting at a given fixed frequency (source 100, column 3, line 60 through column 4 line 5); and on the other hand: receiving means comprising at least three receivers (antenna elements 10a through 10z, column 3 lines 10-22) intended to be placed around the trunk of said subject (belt is worn around the body, column 3, lines 13-16), means for processing and analyzing the position of said element (processing unit 26, column 3, lines 50-53);

Pertaining to claim 10, the system according to claim 9, characterized in that is also comprises means for storing in the memory the phase-shift measurements made by the receivers at a given time (data storage unit 22, column 3, lines 41-42);

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Pertaining to claim 14, the system according to claim 9, characterized in that the receivers are distributed on a belt which is able to be fixed on the trunk of the subject (antenna array belt 10, column 3, lines 10-22);

Pertaining to claim 16, the system according to claim 14, characterized in that the analysis and processing means (processing unit 26, column 3, line 51) include a card comprising means for analogue-to-digital conversion of the signals picked up (this is a commonly known method for manipulating or transforming data, column 2, lines 39-50) and memory means common to the three receivers and arranged on the belt (data storage unit 22);

Pertaining to claim 17, the system according to claim 9, characterized by means for connecting the memory means (data storage unit 22) to the processing and analysis means (processing unit 26) and for transferring the data relating to the phase shifts measured (Figure 2 shows clearly that the processing unit 26 is connected to the data storage unit 22).

26. Frisch fails to show with respect to claim 1, measuring the phase shift of the frequency transmitted by said transmission means relative to a reference phase, and determining by triangulation on the basis of the three phase-shift measurements the position of said element; with respect to claim 9, each receiver being able to measure at a given time the phase shift of said transmission frequency relative to a reference phase; means for processing and analyzing the three phase-shift measurements made by said receivers which are able to determine, by triangulation, the position of said element.

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27. Kimchy teaches with respect to claims 1 and 9, measuring the phase shift of the frequency transmitted by said transmission means relative to a reference phase, and determining by triangulation on the basis of the three phase-shift measurements the position of said element (paragraph [0116]).

28. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have had the position location system, in the device of Frisch, operate with the phase shift triangulation method, as taught by Kimchy, with the motivation that both of the position location methods would yield similar results.

29. Claims 12, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frisch et al. (US 6,904,308, filed 5/20/02) in view of Kimchy et al. (US 2004/0015075, filed 6/11/01) and further in view of Refael (WO 01/50941, filed 1/10/01).

30. Frisch as modified by Kimchy shows the claimed invention substantially, as applied to claims 1-5, 9-10, 14, 16, and 17 in the previous rejection under 35 USC 103(a).

31. Frisch as modified by Kimchy fails to show with respect to claim 12, the system according to claim 10, characterized in that the transmitting element comprises integrated power supply means; with respect to claim 13, the system according to claim 9, characterized in that the transmitting element comprises induced power supply means; with respect to claim 15, the system according to claim 14, characterized in that the belt also comprises means for the induction of the power supply of said transmitting element.

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32. Refael teaches, with respect to claim 12, the system according to claim 10, characterized in that the transmitting element comprises integrated power supply means (page 14, lines 7-9); with respect to claim 13, the system according to claim 9, characterized in that the transmitting element comprises induced power supply means (page 14, lines 7-9); with respect to claim 15, the system according to claim 14, characterized in that the belt also comprises means for the induction of the power supply of said transmitting element (the vest 21 performs the same function as the belt in Frisch, page 16, lines 11-15).

33. It would have been obvious to one of ordinary skill in the art, at the time the invention was made to have utilized these different types of powering means in the system of Frisch, as taught by Refael, with the motivation that some source of power must be applied to the capsule in order for it to function, and these are well known means of powering a transmitting capsule within a patient's body.

34. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frisch et al. (US 6,904,308, filed 5/20/02) in view of Kimchy et al. (US 2004/0015075, filed 6/11/01) and further in view of Hogrefe et al. (US 5,415,181 filed 12/1/93).

35. Frisch as modified by Kimchy shows the claimed invention substantially, as applied to claims 1-5, 9-10, 14, 16, and 17 in the previous rejection under 35 USC 103(a).

36. Frisch as modified by Kimchy shows, with respect to claim 7, said sensor being able to pick up a signal representing a physiological characteristic (column 3, lines 62-



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65); with respect to claim 18, the system according to claim 9, characterized in that the transmitting element comprises a sensor which is able to pick up a signal representing a physiological characteristic (column 3, lines 62-65).

37. Frisch as modified by Kimchy fails to show, with respect to claim 7, the method according to claim 1, characterized in that the amplitude of the transmission frequency of the transmission means is modulated as a function of the amplitude of a signal picked up by a sensor included in the transmitting element; with respect to claim 18, the system according to claim 9, the amplitude of the frequency transmitted by the transmission means being able to be modulated as a function of the amplitude of the signal picked up by said sensor.

38. Hogrefe teaches, with respect to claim 7, the method according to claim 1, characterized in that the amplitude of the transmission frequency of the transmission means is modulated as a function of the amplitude of a signal picked up by a sensor (s1 and s2 in Figure 1) included in the transmitting element, said sensor being able to pick up a signal representing a physiological characteristic (abstract); with respect to claim 18, the system according to claim 9, characterized in that the transmitting element comprises a sensor (s1 and s2 in Figure 1) which is able to pick up a signal representing a physiological characteristic, the amplitude of the frequency transmitted by the transmission means being able to be modulated as a function of the amplitude of the signal picked up by said sensor (abstract).

39. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the telemetry method taught by Hogrefe, in the

device of Frisch, with the motivation that some form of transmission must take place between the capsule and the belt, and this telemetry method would provide a suitable means for transmitting a signal picked up by a sensor detecting a physiological characteristic, from within a capsule in a person's body.

40. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frisch et al. (US 6,904,308, filed 5/20/02) in view of Kimchy et al. (US 2004/0015075, filed 6/11/01) and further in view of Iddan et al. (WO 00/22975, filed 10/21/99).

41. Frisch as modified by Kimchy shows the claimed invention substantially, as applied to claims 1-5, 9-10, 14, 16, and 17 in the previous rejection under 35 USC 103(a).

42. Frisch as modified by Kimchy fails to show, with respect to claim 8, the method according to claim 1, characterized in that said subject ingests several transmitting elements over a period of time, each transmitting element having a characteristic frequency; with respect to claim 19, the system according to claim 9, characterized in that it comprises several transmitting elements intended to be ingested by said subject over a period of time.

43. Iddan teaches, with respect to claim 8, the method according to claim 1, characterized in that said subject ingests several transmitting elements over a period of time, each transmitting element having a characteristic frequency (page 5, lines 10-15); with respect to claim 19, the system according to claim 9, characterized in that it

comprises several transmitting elements intended to be ingested by said subject over a period of time (page 5, lines 10-15).

44. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have had several transmitting elements ingested by the subject over a period of time in the device of Frisch, as taught by Iddan, with the motivation that a doctor may want to take multiple readings of a patient's physiological characteristics over a period of time to determine the proper treatment, and so multiple passes of the capsule would be necessary.

45. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frisch et al. (US 6,904,308, filed 5/20/02) in view of Kimchy et al. (US 2004/0015075, filed 6/11/01) and further in view of Iddan et al. (EP 0667115, filed 1/17/95).

46. Frisch as modified by Kimchy shows the claimed invention substantially, as applied to claims 1-5, 9-10, 14, 16, and 17 in the previous rejection under 35 USC 103(a).

47. Frisch as modified by Kimchy shows, with respect to claim 6, the corresponding phase-shift measurements at each given time are stored in the memory means (data storage unit 22, column 3, lines 41-42).

48. Frisch as modified by Kimchy fails to show, with respect to claim 6, the method according to claim 1, characterized in that the power supply of the transmitting element is triggered at given times; with respect to claim 11, the system according to claim 9, characterized by a high transmission frequency.

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49. Iddan teaches, with respect to claim 6, the method according to claim 1, characterized in that the power supply of the transmitting element is triggered at given times (capsule can be designed to only capture images when muscles are squeezing, saving battery power; with respect to claim 11, the system according to claim 9, characterized by a high transmission frequency (1 GHz is a high frequency, column 4, line 35).

50. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have designed the device of Frisch so that the transmitting element only transmits at certain times, as taught by Iddan, with the motivation that this would save battery power. And also to use a high transmission frequency, as taught by Iddan, in the device of Frisch, with the motivation that a high frequency would be suitable for transmission from a capsule inside the body to an external receiver.

### ***Conclusion***

51. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

52. In US 2003/0139661 Kimchy et al. disclose an ingestible device, such as a radioactive emission detector. The device is intended to travel through the gastrointestinal tract.

53. In US 5,279,607 Schentag et al. disclose an ingestible capsule, which can apply a medicament at certain points along the alimentary canal. This device communicates

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via a radio signal transmitter to a remote receiver, and can be remotely triggered at certain points to release the medicament.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Cwern whose telephone number is 571-270-1560. The examiner can normally be reached on Monday through Friday 7:30AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Gurley can be reached on 571-272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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JC

2/7/07

  
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